

**Table 1 | Descriptive hand ratio data of the entire sample and split by gender**

variables	Entire sample $N_L = 208, N_R = 212$						Females $n_L = 137, n_R = 138$		Males $n_L = 71, n_R = 74$	
	M(all)	SD(all)	SEM	Min	Max	Skew	M(f)	SD(f)	M(m)	SD(m)
LEFT 2D:4D ratio	0.98	0.03	0.00	0.89	1.07	0.05	0.98	0.03	0.97	0.03
RIGHT 2D:4D ratio	0.97	0.03	0.00	0.90	1.05	0.04	0.98	0.03	0.97	0.03

Note. M (Mean), SD (Standard Deviation), SEM (Standard Error of the Mean)

**Table 2 | Age correlated with both hand ratios and Internet addiction variables for the entire sample and both genders using Spearman's  $\rho$** 

	2D:4D LEFT hands			2D:4D RIGHT hands		
	Entire sample $N_L = 208$	Females $n_L = 137$	Males $n_L = 71$	Entire sample $N_R = 212$	Females $n_R = 138$	Males $n_R = 74$
age	23.27 $\pm$ 7.50	22.61 $\pm$ 6.80	24.55 $\pm$ 8.61	23.45 $\pm$ 7.85	22.63 $\pm$ 6.77	24.99 $\pm$ 9.40
2D:4D hands ratios	-0.03	0.06	-0.15	0.05	<b>0.19*</b>	-0.10
s-IAT	-0.13	-0.14	-0.18	-0.10	-0.11	-0.15
s-IAT <sub>LoCTM</sub>	<b>-0.19**</b>	<b>-0.19*</b>	<b>-0.24*</b>	<b>-0.17*</b>	-0.17	<b>-0.23*d</b>
s-IAT <sub>CSP</sub>	0.02	0.02	-0.04	0.04	0.02	0.00
<sup>a</sup> A1 s-IAT	-0.06	<b>-0.17*</b>	-0.16	-0.06	<b>-0.17*</b>	-0.15
<sup>a</sup> A1 s-IAT <sub>LoCTM</sub>	-0.07	<b>-0.18*</b>	-0.13	-0.05	-0.16	-0.11
<sup>a</sup> A1 s-IAT <sub>CSP</sub>	-0.04	-0.13	-0.15	-0.05	-0.13	-0.16
A2 s-IAT	0.10	0.05	0.08	0.10	0.05	0.07
<sup>c</sup> A2 s-IAT <sub>LoCTM</sub>	0.05	<sup>c</sup> n.v.	0.03	0.05	<sup>c</sup> n.v.	0.03
A2 s-IAT <sub>CSP</sub>	0.06	0.05	0.01	0.05	0.05	0.00
<sup>b</sup> A3 s-IAT	0.01	-0.07	0.17	0.01	-0.07	0.17
<sup>b</sup> A3 s-IAT <sub>LoCTM</sub>	0.04	-0.01	0.19	0.04	-0.02	0.19
A3 s-IAT <sub>CSP</sub>	-0.01	-0.10	0.18	0.00	-0.09	0.16
A4 s-IAT	-0.01	-0.16 ( $p = 0.06$ )	-0.10	0.01	<b>-0.17*</b>	-0.04
A4 s-IAT <sub>LoCTM</sub>	0.07	-0.04	-0.06	0.09	-0.05	-0.01
A4 s-IAT <sub>CSP</sub>	-0.05	<b>-0.19*</b>	-0.12	-0.03	<b>-0.20*</b>	-0.05
A5 s-IAT	<b>-0.19**</b>	<b>-0.21*</b>	-0.13	<b>-0.18**</b>	<b>-0.20*</b>	-0.12
A5 s-IAT <sub>LoCTM</sub>	<b>-0.20**</b>	<b>-0.22*</b>	-0.18	<b>-0.19**</b>	<b>-0.21*</b>	-0.16
A5 s-IAT <sub>CSP</sub>	-0.12	-0.16	-0.01	-0.13	-0.15	-0.04

Note. Correlation (2-tailed) is significant at the 0.01 level (\*\*), at the 0.05 level (\*); sub-facets of s-IAT: LoCTM (loss of control/time management), CSP (craving/social problems), s-IAT A1: online gaming, s-IAT A2: online gambling, s-IAT A3: online shopping, s-IAT A4: for online pornography, s-IAT A5: online communication.

<sup>a</sup> $N$  is reduced by 1 (one participant missed to enter their 4 values for A1 online gaming): for LEFT hands  $N_L = 207, N(\emptyset)_L = 136$ ; for RIGHT hands  $N_R = 211, N(\emptyset)_R = 137$

<sup>b</sup> $N$  is reduced by 1 (one participant missed to enter the 3<sup>rd</sup> item of the s-IAT A3 question set: online shopping, A3 s-IAT<sub>CSP</sub> remains unaffected): for LEFT hands  $N_L = 207, N(\emptyset)_L = 136$ ; for RIGHT hands  $N_R = 211, N(\emptyset)_R = 137$

<sup>c</sup>all female participants chose the lowest value:  $M = 2, SD = 0$

<sup>d</sup> $p = 0.05$

# The 2D:4D Marker and Different Forms of Internet Use Disorder

Table 3 | Spearman's *rho* of age correlated with each item of the s-IAT and the five scales (A1-A5) for the entire sample and both genders

s-IAT item no.	1	2	3	4	5	6	7	8	9	10	11	12
All ( <i>N</i> = 217)	-0.10	-0.13	-0.12	0.09	0.04	-0.06	-0.05	-0.12	<b>-0.18**</b>	0.02	0.08	0.03
Female ( <i>n</i> = 140)	-0.15	-0.16	-0.06	0.10	-0.02	-0.05	-0.08	<b>-0.18*</b>	<b>-0.17*</b>	0.02	0.04	-0.01
Male ( <i>n</i> = 77)	-0.02	-0.14	<b>-0.30**</b>	-0.01	0.07	-0.06	-0.05	-0.09	-0.19	0.00	0.10	-0.02
Scales	A1-1	A1-2	A1-3	A1-4	A2-1	A2-2	A2-3	A2-4	A3-1	A3-2	A3-3	A3-4
All ( <i>N</i> = 217)	<sup>a</sup> -0.03	<sup>a</sup> -0.02	<sup>a</sup> -0.01	<sup>a</sup> -0.04	0.05	0.07	0.08	0.02	0.03	0.02	0.10	-0.01
Female ( <i>n</i> = 140)	<sup>a</sup> -0.15	<sup>a</sup> -0.09	<sup>a</sup> -0.008	<sup>a</sup> -0.06	<sup>c</sup> n.v.	0.05	<sup>c</sup> n.v.	<sup>c</sup> n.v.	-0.04	-0.08	<sup>b</sup> 0.03	-0.09
Male ( <i>n</i> = 77)	-0.10	-0.12	-0.07	-0.17	0.02	0.03	0.10	0.00	0.16	0.21	<b>0.25*</b>	0.14
Scales	A4-1	A4-2	A4-3	A4-4	A5-1	A5-2	A5-3	A5-4				
All ( <i>N</i> = 217)	0.10	-0.02	0.06	0.06	<b>-0.16*</b>	<b>-0.17**</b>	<b>-0.18**</b>	0.00				
Female ( <i>n</i> = 140)	-0.03	<b>-0.19*</b>	0.01	0.01	<b>-0.17*</b>	<b>-0.22**</b>	<b>-0.22**</b>	-0.01				
Male ( <i>n</i> = 77)	0.01	-0.05	-0.05	0.02	-0.11	-0.06	-0.11	0.06				

Note. Correlation (2-tailed) is significant at the 0.01 level (\*\*), at the 0.05 level (\*); greyish fields account for the sub facet LoCTM, white background for the sub facet CSP, <sup>a</sup>*N* is reduced by 1 (one participant missed to enter their 4 values for A1 online gaming), <sup>b</sup>*N* is reduced by 1 (one participant missed to enter the 3<sup>rd</sup> item of the s-IAT A3 question set: online shopping), <sup>c</sup>all female participants chose the lowest value: *M* = 2, *SD* = 0

Table 4 | Spearman's *rhos* between all IUD variables (s-IAT and scales A1 - A5) for the entire sample and both genders

IUD-VAR	Entire sample ( <i>N</i> = 217, <sup>a,b</sup> <i>N</i> = 216)									
	s-IAT	<sup>a</sup> A1 s-IAT	A2 s-IAT	<sup>b</sup> A3 s-IAT	A4 s-IAT					
<sup>a</sup> A1 s-IAT	<b>0.30**</b>									
A2 s-IAT	-0.01	<b>0.17*</b>								
<sup>b</sup> A3 s-IAT	<b>0.19**</b>		0.11		-0.03					
A4 s-IAT	<b>0.31**</b>	<b>0.33**</b>		<b>0.17*</b>		0.13 <sup>c</sup>				
A5 s-IAT	<b>0.40**</b>		0.04		0.01	<b>0.33**</b>		0.11		
Females ( <i>n</i> = 140, <sup>a,b</sup> <i>n</i> = 139)										
IUD-VAR	s-IAT	<sup>a</sup> A1 s-IAT	A2 s-IAT	<sup>b</sup> A3 s-IAT	A4 s-IAT	s-IAT	A1 s-IAT	A2 s-IAT	A3 s-IAT	A4 s-IAT
<sup>a</sup> A1 s-IAT	0.15					<b>0.52**</b>				
A2 s-IAT	-0.02	<b>0.18*</b>				-0.07	0.03			
<sup>b</sup> A3 s-IAT	<b>0.28**</b>	<b>0.22**</b>	-0.03			0.03	0.07	0.03		
A4 s-IAT	<b>0.28**</b>	0.10	0.10	<b>0.21*</b>		<b>0.39**</b>	0.17	-0.08	<b>0.27*</b>	
A5 s-IAT	<b>0.48**</b>	0.04	-0.08	<b>0.21*</b>	<b>0.19*</b>	<b>0.28*</b>	0.20	0.12	<b>0.49**</b>	<b>0.40**</b>
Males ( <i>n</i> = 77)										

Note. IUD-VAR (Internet use disorder variable), Correlation (2-tailed) is significant at the 0.01 level (\*\*), at the 0.05 level (\*); s-IAT A1: online gaming, s-IAT A2: online gambling, s-IAT A3: online shopping, s-IAT A4: for online pornography, s-IAT A5: online communication.

<sup>a</sup>*N* is reduced by 1 (one participant missed to enter their 4 values for A1 online gaming)

<sup>b</sup>*N* is reduced by 1 (one participant missed to enter the 3<sup>rd</sup> item of the A3 s-IAT question set)

<sup>c</sup>*p* = 0.05

Table 5 | Partial correlation coefficients corrected by age between all IUD variables for the entire sample and both genders

IUD-VAR	Entire sample ( $df = 212$ )									
	s-IAT	<sup>a</sup> A1 s-IAT	A2 s-IAT	<sup>b</sup> A3 s-IAT	A4 s-IAT					
<sup>a</sup> A1 s-IAT	<b>0.39**</b>									
A2 s-IAT	0.00	<b>0.17*</b>								
<sup>b</sup> A3 s-IAT	<b>0.34**</b>	<b>0.19**</b>	-0.03							
A4 s-IAT	<b>0.39**</b>	<b>0.41**</b>	0.07	<b>0.20**</b>						
A5 s-IAT	<b>0.40**</b>	0.04	0.11	<b>0.34**</b>	0.11					
Females ( $df = 135$ )					Males ( $df = 74$ )					
IUD-VAR	s-IAT	<sup>a</sup> A1 s-IAT	A2 s-IAT	<sup>b</sup> A3 s-IAT	A4 s-IAT	s-IAT	A1 s-IAT	A2 s-IAT	A3 s-IAT	A4 s-IAT
<sup>a</sup> A1 s-IAT	0.16					<b>0.57**</b>				
A2 s-IAT	-0.02	0.10				-0.04	0.07			
<sup>b</sup> A3 s-IAT	<b>0.34**</b>	<b>0.32**</b>	-0.05			<b>0.39**</b>	<b>0.24*</b>	0.01		
A4 s-IAT	<b>0.28**</b>	0.02	<b>0.19*</b>	0.13		<b>0.53**</b>	<b>0.30**</b>	-0.13	<b>0.51**</b>	
A5 s-IAT	<b>0.50**</b>	0.07	-0.07	<b>0.25**</b>	<b>0.21*</b>	<b>0.29*</b>	0.16	<b>0.30**</b>	<b>0.51**</b>	<b>0.27*</b>

Note. IUD-VAR (Internet use disorder variable), Correlation (2-tailed) is significant at the 0.01 level (\*\*), at the 0.05 level (\*); s-IAT A1: online gaming, s-IAT A2: online gambling, s-IAT A3: online shopping, s-IAT A4: for online pornography, s-IAT A5: online communication.

<sup>a</sup>N is reduced by 1 (one participant missed to enter their 4 values for A1 online gaming)

<sup>b</sup>N is reduced by 1 (one participant missed to enter the 3<sup>rd</sup> item of the A3 s-IAT question set)

A test for differences of finger ratios regarding the s-IAT cut-off value (30) stated in Pawlikowski et al. (2013) between both problematic ( $> 30$ ) and unproblematic ( $\leq 30$ ) Internet user groups. T-tests between the hands in the entire sample and both genders, respectively, did not reveal any differences (Table 6).

Table 6 | Differences of hand ratios between problematic and ordinary Internet user groups

2D:4D ratios	Problematic Internet use: s-IAT $> 30$		Normal Internet use: s-IAT $\leq 30$		T-test	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>T-score</i>	<i>p</i>
<b>Left hands:</b> $N_L = 208$ , $n(> 30) = 36$ , $n(\leq 30) = 172$	0.97	0.03	0.98	0.03	-0.28	.078
<b>Females:</b> $n_L = 137$ , $n(> 30) = 23$ , $n(\leq 30) = 114$	0.97	0.03	0.98	0.03	-0.62	0.54
<b>Males:</b> $n_L = 71$ , $n(> 30) = 13$ , $n(\leq 30) = 58$	0.98	0.03	0.97	0.03	0.43	0.67
<b>Right hands:</b> $N_R = 212$ , $n(> 30) = 35$ , $n(\leq 30) = 177$	0.97	0.04	0.97	0.03	-1.26	0.21
<b>Females:</b> $n = 138$ , $n(> 30) = 23$ , $n(\leq 30) = 115$	0.97	0.04	0.98	0.03	-0.56	0.58
<b>Males:</b> $n = 74$ , $n(> 30) = 12$ , $n(\leq 30) = 62$	0.95	0.03	0.97	0.03	-1.49	0.14